



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/796,681

03/09/2004

Karsten Hackbarth

H 5265

2641

423 7590 06/09/2009
HENKEL CORPORATION
1001 TROUT BROOK CROSSING
ROCKY HILL, CT 06067

EXAMINER

CHEUNG, WILLIAM K

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

06/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/796,681	Applicant(s) HACKBARTH ET AL.	
	Examiner WILLIAM K. CHEUNG	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 28 and 31-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 28 and 31-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Request for Continued Examination

1. The request filed on March 23, 2009 for a Request for Continued Examination (RCE) under 37 CFR 1.53(d) based on parent Application No. 10/796,681 is acceptable and a RCE has been established. An action on the RCE follows. Claims 1-7, 28, 31-39 are pending. The instant office action will address the argument filed in the appeal brief of October 9, 2008.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-7, 28, 31-35, 37-39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 (line 17-19), claim 28 (line 17-19), the recitations of "wherein 2.0 to 9.7 wt. %, based upon total coating material, of the at least one low molecular weight (meth)acrylate is selected from difunctional, trifunctional and polyfunctional (meth)acrylate compounds" are considered "new matter" because the claimed subject

Art Unit: 1796

matter was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants are required to file an amendment to remove the new matter introduced.

Applicant's arguments filed October 9, 2008 have been fully considered but they are not persuasive. Applicants argue that the claimed concentration is supported by Table of page 8 of the applicants' response filed August 8, 2007. However, applicants fail to recognize that the Table in page 8 does not disclose any (meth)acrylate compound; the table only disclose acrylate compounds. Therefore, the concentration teachings of acrylate compounds as taught in the Table does not adequately provide the support of the concentration of the (meth)acrylate compounds as claimed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Shustack (US Pat. 5,128,391) for the reasons adequately set forth from paragraph 6 of non-final office of November 1, 2007.

The prior art to Shustack (abstract) relates to an extensible and pasteurizable radiation curable coating for metal. The ingredients in the coatings are

(a) 15-75 wt% of ethylenically unsaturated monomer as defined by a general formula disclosed at column 2, line 45-60, and column 5, line 29-65, which meets the instantly claimed component (b);

(b) 10-80 wt% of an oligomer component that is a mixture of (i) at least one of an urethane acrylate oligomer or urethane methacrylate oligomer, and (ii) at least one of an epoxy acrylate oligomer or epoxy methacrylate oligomer described at column 2, line 61-66, and column 6, line 5-26, which meets the instantly claimed component (a); and

(c) 0.1-10 wt% of an organofunctional silane adhesion promoter described at column 2, line 67-68, column 8, line 61-68, and column 9, line 1-40, and other additives mentioned including photoinitiator, dyes and pigment (column 4, line 16-28), which meets the instantly claimed component (d).

Shustack further teaches that the numerous other mono-multifunctional monomers, which are compatible with the basic composition may be included therein, in an amount of up 30 wt% (column 12, line 11-21), which meets the instantly claimed component (c).

In terms of the limitation of the viscosity of the coating material in Claims 1-2, as discussed above, the coating composition prepared by Shustack is substantially identical to the claimed composition. Therefore, it is the examiner's position to believe that the prior art composition must inherently possess the same viscosity. Since the PTO does not have proper means to conduct experiments, the burden of proof is now

Art Unit: 1796

shifted to the applicant to establish an unobviousness difference. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

As to Claim 3, the description of an organofunctional silane material used, as an adhesive promoter, in an amount of 0.1-10 wt% can be seen at column 4, line 49-67. Examples of such organofunctional silane compound can be found at column 9, line 1-35.

As to Claim 5, the rejection made for Claim 1, component (d) described above in this Office Action would be applied herein to reject Claim 5.

In sum, all the limitations of Claims 1-3 and 5 are fully met by Shustack's disclosure.

Applicant's arguments filed October 9, 2008 have been fully considered but they are not persuasive. Applicants argue that Shustack does not disclose any (meth)acrylate di-functional or tri-functional compounds. However, the examiner disagrees because Shustack (col. 12, line 18-19) clearly disclose the use of multi-functional (meth)acrylates.

However, in view of the 112 rejection set forth because of the "new matter" issues. The rationale for rejection set forth from the office action of February 8, 2007 is proper and adequate.

Art Unit: 1796

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shustack (US Pat. 5,128,391) in view of Shustack (US Pat. 5,128,387) for the reasons adequately set forth from paragraph 8 of non-final office of November 1, 2007.

The prior art to Shustack' 391 is adequately presented in paragraph 6 previously in this Office Action and is incorporated herein by reference. Shustack' 391 does not include phosphoric or phosphoric methacrylate compound in the coating composition. Shustack' 387 discloses an extensible and pasteurizable radiation curable coating for metal with very similar ingredients (column 2, line 25-45). Shustack' 387 teaches that a methacrylated phosphoric acid is included in the coating composition in order to promoter adhesion of the coating material (column 18, Claim 11, component (c)). Accordingly, it would have been obvious to one having ordinary skill in the art at the

Art Unit: 1796

time the invention was made to incorporate the methacrylated phosphoric acid, as taught by Shustack' 387, in Shustack' 391's coating composition formulation, in order to promote the adhesion of the coating material, as taught expressly by Shustack' 387.

Applicant's arguments filed October 9, 2008 have been fully considered but they are not persuasive. In view of the 112 rejection set forth because of the "new matter" issues. The rationale for rejection set forth from the office action of February 8, 2007 is proper and adequate.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shustack (US Pat. 5,128,391) in view of Razavi (US Pat. 5,629,365) for the reasons adequately set forth from paragraph 9 of non-final office of November 1, 2007.

The prior art to Shustack' 391 is adequately presented in paragraph 4 previously in this Office Action and is incorporated herein by reference. Shustack' 391 does not include a biocide in the coating composition. The prior art to Razavi relates to an UV-absorbing polymer latex as protective coating comprising methacrylate functionalized benzotriazole. Razavi teaches that the invented latex can be enhanced by a variety of other common coating additives including biocides (column 5, line 26-31). Thus, based on the common use of this additive, biocide, as taught by Razavi, it would have been obvious to those skilled in the art to incorporate such additive in the composition of Shustack' 391 in order to enhance the coating composition of Shustack' 391, and thus to arrive at the instant Claim 6.

Applicant's arguments filed October 9, 2008 have been fully considered but they are not persuasive. In view of the 112 rejection set forth because of the "new matter" issues. The rationale for rejection set forth from the office action of February 8, 2007 is proper and adequate.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shustack (US Pat. 5,128,391) in view of Nagasawa et al. (US Pat. 4,205,018) for the reasons adequately set forth from paragraph 10 of non-final office of November 1, 2007.

The prior art to Shustack' 391 is adequately presented in paragraph 4 previously in this Office Action and is incorporated herein by reference. Shustack' 391 does not include disperse silica or disperse aluminum oxide in the coating composition. The prior art to Nagasawa et al. discloses a resin coating composition comprising polymerizable oligomers (column 7, line 22-42). Nagasawa et al. teach that a finely divided powder of silica may be used as a thixotropic agent (column 12, line 3-5). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ such finely divided powder of silica, as taught by Nagasawa et al., in Shustack's coating composition formulation because Shustack teaches that other additives are preferably incorporated in the composition to impart desirable properties (column 3, line 3-4).

Applicant's arguments filed October 9, 2008 have been fully considered but they are not persuasive. In view of the 112 rejection set forth because of the "new matter" issues. The rationale for rejection set forth from the office action of February 8, 2007 is proper and adequate.

10. Claim 28, 31-35, 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shustack (US Pat. 5,128,391) for the reasons adequately set forth from paragraph 11 of non-final office of November 1, 2007..

Comparison between the instantly claimed ranges and that of the prior art is tabled as following.

Component	Instantly Claimed Rang	Prior Art Range	Shustack (US 5,128,391)
a	45 – 85 wt%	25 – 50 wt%	Column 4, line 49
b	10 – 60 wt%	40 – 60 wt%	Column 4, line 37
c	0.5 – 10 wt%	Up to 30 wt%	Column 12, line 14
d	0.5 – 15 wt%	3 wt%	Column 14, Example I
e	Up to 20 wt%	0.1 – 10 wt%	Column 2, line 67

The prior art range, which either overlaps, is within or covers the instantly claimed range for the components a-e, respectively, is seen to render obvious the ranges as instantly claimed.

Applicant's arguments filed October 9, 2008 have been fully considered but they are not persuasive. In view of the 112 rejection set forth because of the "new matter" issues. The rationale for rejection set forth from the office action of February 8, 2007 is proper and adequate.

Regarding applicants' argument that the previous office action (February 8, 2007) fails to address the limitations of claims 31-35, 37-38, applicants fail to recognize that the 112 (new matter) rejection of claim 28 includes the rejection of claims 31-35, 37-38. Therefore, in view of the new matter 112 rejection set forth, the examiner has a reasonable basis to believe that the rationale set forth from the earlier office action is adequate for maintaining the instant 103 rejection.

Further, regarding applicants' argument that Shustack does not teach the use of (meth)acrylate compounds that are difunctional, trifunctional or polyfunctional, the examiner disagrees because Shustack (col. 8, line 66; col. 12 ,line 18-19) clearly disclose the use of polyfunctional (meth)acrylates.

Response to Arguments

In summary, applicant's arguments filed October 9, 2008 have been fully considered but they are not persuasive. Applicants argue that the claimed concentration is supported by Table 1 of applicants' specification because applicants' specification uses "(meth) acrylates" to denote both "methacrylates and acrylates" in view of applicants' specification (page 7, line 35-37) which clearly indicate that clearly refer to "(meth) acrylates" as "acrylates". However, the examiner disagrees because although

Art Unit: 1796

"acrylates" or "acrylics" can include "methacrylates", "methacrylates" do not include "acrylates". Further, applicants' specification fails to provide any indication to support applicants' argument that "(meth) acrylates" can denote both "methacrylates and acrylates".

Even assuming that "(meth) acrylates" can represents "methacrylate" and "acrylates", applicants must recognize that the support of the concentration of a species does not support the concentration of its genus.

Regarding applicants' argument that Shustack does not disclose any (meth)acrylate di-functional or tri-functional compounds, the examiner disagrees because Shustack (col. 12, line 18-19) clearly discloses the use of multi-functional (meth)acrylates and multi-functional acrylates.

Additionally, numerous other mono- or multifunctional monomers which are compatible with the basic composition may be incorporated therein, in an amount of up to 30% by weight of the basic composition, insofar as they do not adversely affect the composition. Examples of such compatible monomers are vinylic compounds such as acrylamide, acrylamide derivatives, vinyl pyrrolidone and other mono- or multi-functional acrylates and/or methacrylates such as glycerol propoxy triacrylate or trimethylol propane propoxylate triacrylate.

Regarding applicants' argument that claim 36 has not been rejected because claim 36 is not recited in the form paragraphs, the examiner disagrees because the PTOL-326 clearly indicates that claim 36 has been rejected. Applicants must recognize

Art Unit: 1796

that the dependents claims 37-38 have been rejected. Therefore, it would not be difficult to one of ordinary skill to recognize that claim 36 has also been rejected.

Regarding claim 36, applicants must recognize that the comparison between the instantly claimed ranges and that of the prior art is table as following.

Component	Instantly Claimed Rang	Prior Art Range	Shustack (US 5,128,391)
a	45 – 85 wt%	25 – 50 wt%	Column 4, line 49
b	10 – 60 wt%	40 – 60 wt%	Column 4, line 37
c	0.5 – 10 wt%	Up to 30 wt%	Column 12, line 14
d	0.5 – 15 wt%	3 wt%	Column 14, Example I
e	Up to 20 wt%	0.1 – 10 wt%	Column 2, line 67

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 1796

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/William K Cheung/
Primary Examiner, Art Unit 1796

William K. Cheung, Ph. D.
Primary Patent Examiner
June 7, 2009